U.S. DEPARTMENT OF **ENERGY** | Energy Efficiency & Renewable Energy

Hospital Energy Alliance

Lighting and Controls Supplier Summit
Las Vegas, Nevada
May 11, 2010

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Cleveland Clinic

U.S. DEPARTMENT OF **ENERGY** | Energy Efficiency & Renewable Energy

Hospitals/Healthcare Facilities

- Adventist HealthCare
- Ascension Health
- Boulder Community Hospital
- Catholic Health Initiatives (CHI)
- Catholic Healthcare West*
- Clarion Hospital
- Cleveland Clinic*
- Dartmouth-Hitchcock Medical Center
- Department of Veterans Affairs*
- Geisinger Health System
- Gundersen Lutheran Health System*
- Hackensack University Medical Center
- Health Care REIT
- HealthSouth
- Hospital Corporation of America*
- Inova Health System
- Johns Hopkins Health System

- Kaiser Permanente*
- Legacy Health System
- Metro Health Hospital
- NewYork-Presbyterian Hospital*
- Partners HealthCare
- Providence Health & Services*
- Rush University Medical Center
- San Luis Valley Regional Medical Center
- Texas Children's Hospital
- Texas Medical Center (TECO)*
- TRICARE Management Activity (TMA)*
- University of Pittsburgh Medical Center*
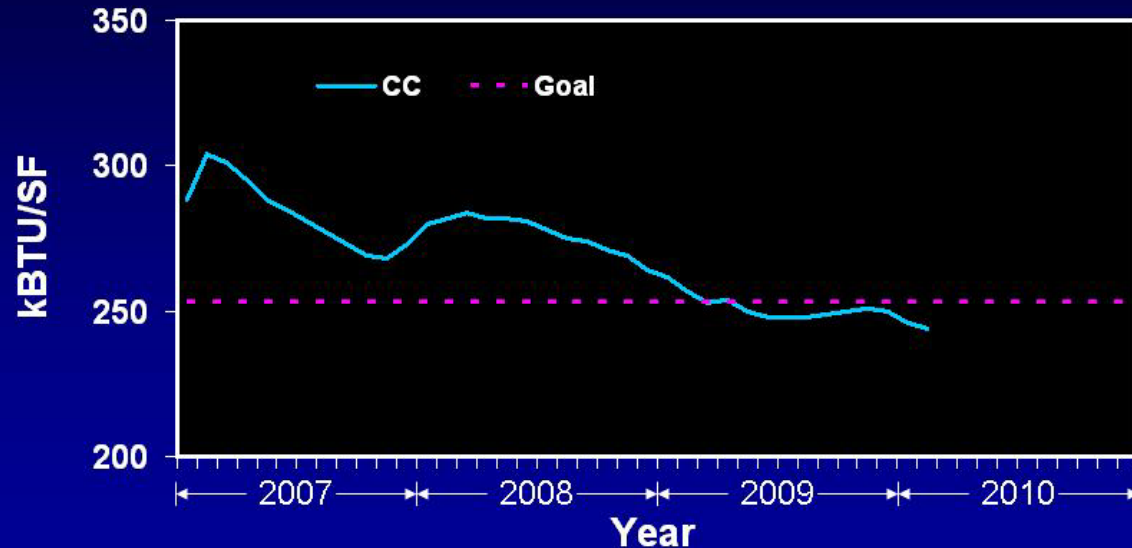- Veterans Health Administration
- Yale-New Haven Hospital

Associations

- ASHE*
- ASHRAE*
- IES*
- IFMA
- Practice Greenhealth*
- VHA

Steering Committee Members

Commercial Building Energy Alliances

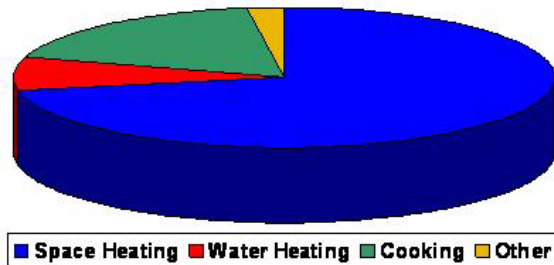# Impact of Lighting Efficiency

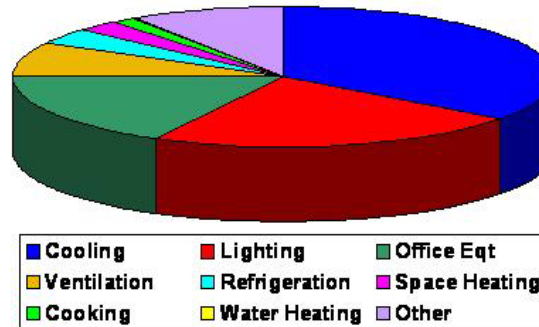**Savings since 2007: 54,170,872 kWh; 165,225 CFL & SSL**

Commercial Building Energy Alliances

Healthcare Energy Usage - $8B & 1.25% of US CO_2
Energy Information Administration (www.eia.doe.gov)

Natural Gas

- Space Heating
- Water Heating
- Cooking
- Other

Total Healthcare Consumption: 258 Trillion BTU

Electricity

- Cooling
- Lighting
- Office Eqt
- Ventilation
- Refrigeration
- Space Heating
- Cooking
- Water Heating
- Other

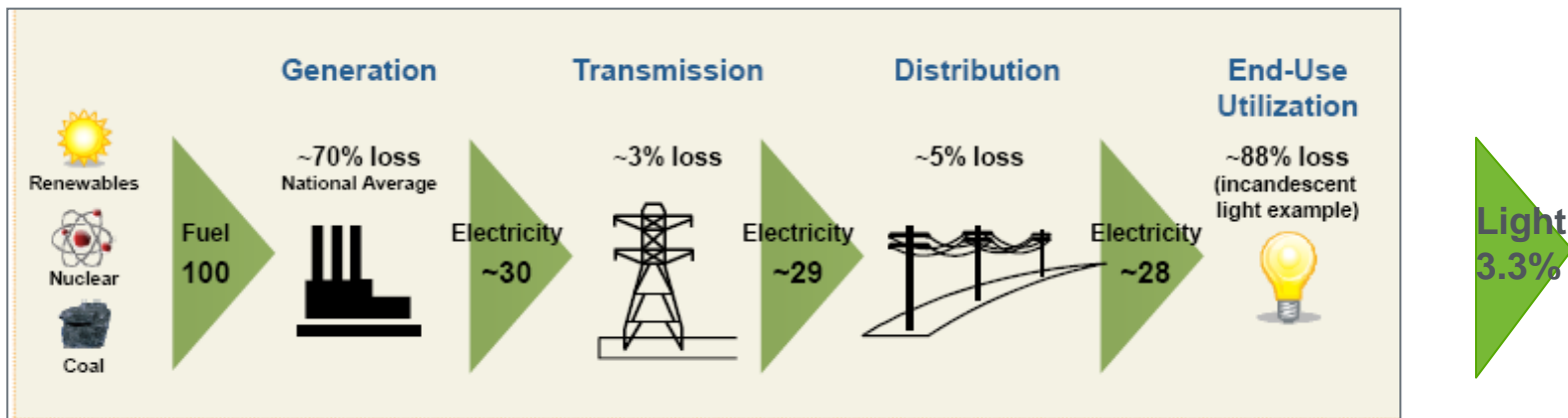Total Healthcare Consumption: 211 Trillion BTU

561,000,000,000,000 BTU
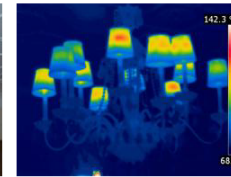* Includes 21 Trillion BTU Fuel Oil and 71 Trillion BTU Other

Cleveland Clinic

Commercial Building Energy Alliances

- Retrofit over retrofit-able over new
- Reduction in maintenance over energy savings
- Increase in patient satisfaction and patient safety
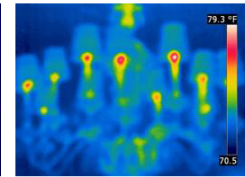- Administrative/general lighting over exam/treatment over decorative

- 57% have hosted SSL demonstration projects
- 75% are not able to isolate lighting energy use, although 67% are interested in being able to do so
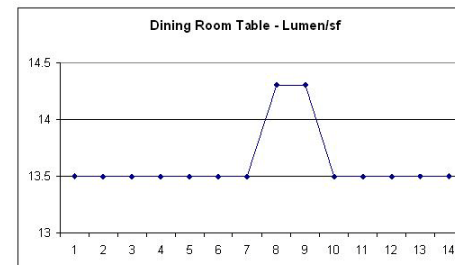- 88% group relamp
- 75% use long life lamps

Location: Table in Dining Room under 12-lamp chandelier

Incandescent   LED

Dining Room Table - Lumen/sf

No appreciable Lumen/sf loss

Heat reduction of 63°F***

Wattage reduction of 456 W

Cost savings of $114/year

***Note: Shades mask some of the waste heat loss from individual lamps. Gloves were needed to change incandescent lamps whereas LEDs were still cool to the touch after 60 minutes of use.

Commercial Building Energy Alliances

- **Standardize product offerings**
  - CRI
  - Efficacy/output
  - Temperature (resolve binning issues)
- **Reduce product cost**